

WHAT IS CLAIMED IS:

1. A thermoplastic polyolefin (TPO) roofing membrane comprising a reinforcement scrim sandwiched between cap and base layers which are pressed into a single ply membrane having a thickness of about 35-90 mils, characterized in that both of said layers are made of, by weight, 50-90% of metallocene-catalyzed polyolefin, and about 10-50% of additives, said membrane exhibiting a 90° heat seam peel strength of ≥ 60 lbs/linear inch (ASTM D-413) and a cold brittleness point of $\leq -50^{\circ}\text{C}$ (ASTM D-413).
2. A roofing membrane according to claim 1 wherein said 90° heat seam peel strength is about 66-69 lbs/linear inch over a 4 day period, and said cold brittleness point is about -58 to -70°C .
3. A roofing membrane according to claim 1 wherein said polyolefin is a copolymer of ethylene and butene.
4. A roofing membrane according to claim 1 in which said layers include a crystallinity enhancing polymer.
5. A roofing membrane according to claim 1 wherein the molecular weight distribution (MWD) of said polyolefin is about 2 to 2.5.